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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/090,002	03/05/2002	Chunhua Yan	CL001316	4439

25748 7590 08/22/2003

CELERA GENOMICS CORP.
ATTN: WAYNE MONTGOMERY, VICE PRES, INTEL PROPERTY
45 WEST GUDE DRIVE
C2-4#20
ROCKVILLE, MD 20850

EXAMINER

STEADMAN, DAVID J

ART UNIT	PAPER NUMBER
----------	--------------

1652

13

DATE MAILED: 08/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/090,002

Applicant(s)

YAN ET AL.

Examiner

David J Steadman

Art Unit

1652

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,8,9 and 24-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,8,9 and 24-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *sequence alignment*.

DETAILED ACTION

Status of the Application

- [1]** Claims 4, 8, 9, and 24-37 are pending in the application.
- [2]** Applicant's cancellation of claims 1-3, 5-7, and 10-23 and addition of claims 24-37 in Paper No. 12, filed June 20, 2003, is acknowledged.
- [3]** Applicant's election without traverse of Group III, original claims 4-6, 8-11, 22, and 23, drawn to an isolated nucleic acid encoding SEQ ID NO:2 in Paper No. 12 is acknowledged.

Oath/Declaration

- [4]** It is noted that the declaration filed as Paper No. 5 has not been signed by inventor Gong as required under 37 CFR § 1.63(a)(1). Applicant's petition under 37 CFR § 1.47(a), filed as Paper No. 9, has been granted and the instant application has been afforded 37 CFR § 1.47(a) status (see Paper No. 10 for details regarding granting of the petition).

Sequence Compliance

- [5]** This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825; applicants' attention is directed to the final rulemaking notice published at 55 FR 18230 (May 1, 1990), and 1114 OG 29 (May 15, 1990). To be in compliance, applicant is required to identify all amino acid sequences of at least 4 L-amino acids and at least 10 nucleotides by a sequence identifier, i.e., "SEQ ID NO:". The specification discloses sequences that have not been identified by a sequence identifier (see Figure 2A). If these sequences have not been disclosed in the computer readable form of the sequence listing and the paper copy thereof, applicant must provide a computer readable form copy of the "Sequence Listing" including these sequences, a paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification, and a statement that the content of the paper and CRF copies are the same and,

Art Unit: 1652

where applicable, include no new matter as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.821(b) or 1.825(d).

Specification/Informalities

[6] The attempt to incorporate subject matter into this application by reference to a hyperlink embedded in the specification (see particularly page 11, lines 22 and 26) is improper. Incorporation of subject matter into the patent application by reference to a hyperlink and/or other forms of browser-executable code is considered to be an improper incorporation by reference. See MPEP 608.01 regarding hyperlinks in the specification and 608.01(p), paragraph I regarding incorporation by reference.

Claim Rejections - 35 USC § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

[7] Claims 25 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25 and 27 are indefinite in the recitation of "having a nucleotide sequence consisting of". The scope of claimed polynucleotides is unclear because the claims recite the term "having", which, according to MPEP § 2111.03, can be interpreted as open or closed claim language and is typically interpreted as open claim language in claims drawn to nucleic acid sequences and further recite "consisting of", which according to MPEP § 2111.03, is closed claim language. It is noted that if the term "having" in claim 25 were interpreted as using open claim language, claims 25 and 26 would be identical in scope and claim 26 would be a substantial duplicate of claim 25. In view of the duplicity of claims 25 and 26 (if the term "having" in claim 25 were interpreted as open language), the examiner has interpreted the term "having" in claims 25 and 27 as closed claim language and claims 25 and 27 have

Art Unit: 1652

been essentially interpreted as "[a]n isolated polynucleotide consisting of SEQ ID NO:1" and "[a]n isolated polynucleotide consisting of SEQ ID NO:3", respectively. Because the term "having" is typically interpreted as open claim language in claims drawn to nucleic acid sequences, it is suggested that applicant clarify the scope of claimed polynucleotides by, for example, amending the term "having a nucleotide sequence consisting of" to "consisting of" in claims 25 and 27.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

[8] Claims 4, 8, and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Database GenBank Accession Number AC022382 (version AC022382.3, gi:12007691). Claim 4 (in relevant part) is drawn to an isolated nucleic acid molecule consisting of a nucleotide sequence that encodes a polypeptide having an amino acid sequence comprising SEQ ID NO:2. Claim 8 is drawn to a vector comprising the nucleic acid molecule of claim 4. Claim 28 limits the vector of claim 4 to a plasmid, a virus, or a bacteriophage. Database GenBank Accession Number AC022382 teaches a genomic nucleic acid sequence that is identical to SEQ ID NO:3 with the exception that nucleotide 70,879 of Database GenBank Accession Number AC022382 is not present, i.e., is deleted, in SEQ ID NO:3 (see attached sequence alignment). According to the specification (see Figures 3F and 3G), the deletion is within an intron of SEQ ID NO:3. Thus, although the sequences of Database GenBank Accession Number AC022382 and SEQ ID NO:3 are not 100% identical, the nucleic acid sequence of Database GenBank Accession Number AC022382 nonetheless encodes SEQ ID NO:2 as this deletion (as described above) does not occur in an exon (polypeptide coding sequence) of SEQ ID NO:3. Database GenBank Accession Number

Art Unit: 1652

AC022382 further teaches their nucleic acid is present in a pUC18 vector for sequencing (see "Comment" section). This anticipates claims 4, 8, and 28 as written.

Claim Rejections - 35 USC § 102/103

[9] Claim 9 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Database GenBank Accession Number AC022382. Database GenBank Accession Number AC022382 discloses the teachings as set forth in item 8 above. Database GenBank Accession Number AC022382 further teaches the sequence of their nucleic acid was determined from clone RP11-266J6. One of ordinary skill in the art would recognize the meaning of the term "clone" in the context of Database GenBank Accession Number AC022382 refers to a host cell comprising a vector and that, in the course of cloning the nucleic acid of Database GenBank Accession Number AC022382 into the disclosed pUC18 vector, the vector would necessarily be used to transform a host cell for replication of the vector for sequencing. Therefore, while Database GenBank Accession Number AC022382 does not specifically teach that the pUC18 vector comprising their nucleic acid sequence is present in a host cell, transformation of a host cell with a vector is an inherent feature of generating a clone and thus, the pUC18 vector comprising the nucleic acid sequence of Database GenBank Accession Number AC022382 would necessarily be present in a host cell. Alternatively, it would be obvious to one of ordinary skill in the art to transform a host cell with the pUC18 vector comprising the nucleic acid sequence of Database GenBank Accession Number AC022382 in order to replicate the plasmid for nucleotide sequencing. One of ordinary skill in the art would have been motivated to transform a host cell with the pUC18 vector comprising the nucleic acid sequence of Database GenBank Accession Number AC022382 in order to generate the required amount of plasmid for sequencing.

[10] It is noted that, while Database GenBank Accession Number AC022382 teaches their nucleic acid is inserted into a pUC18 cloning vector, claim 24, drawn to a process for producing a polypeptide comprising culturing the host cell of claim 9 and recovering the polypeptide and claims 29 and 30, drawn

Art Unit: 1652

to the vector of claim 8, wherein the nucleic acid molecule is inserted into the vector in proper orientation and correct reading frame such that a polypeptide comprising SEQ ID NO:2 may be expressed in a host cell (claim 29) and optionally wherein said nucleic acid molecule is operatively linked to a promoter sequence (claim 30), have not been rejected as being anticipated or made obvious by Database GenBank Accession Number AC022382. In the instant case, the pUC18 vector as disclosed in Database GenBank Accession Number AC022382 is a vector used for cloning, sequencing and site-directed mutagenesis and does not possess the necessary promoter for polypeptide expression (see Norrander et al. *Gene* 26:101-106 describing the construction of pUC18). Database GenBank Accession Number AC022382 teaches their nucleic acid is a genomic human nucleic acid sequence. It is well known to one of ordinary skill in the art that pUC18 is replicable in bacterial cells and not eucaryotic cells, and thus a skilled artisan would not be motivated to transfect a eucaryotic host cell with the vector of Database GenBank Accession Number AC022382. Also, even if the nucleic acid were transcribed into mRNA in a bacterial cell, it would not be processed into a SEQ ID NO:2-encoding nucleic acid as bacterial mRNA does not undergo post-transcriptional processing. Furthermore, Database GenBank Accession Number AC022382 provides no indication that their nucleic acid is a protein-encoding sequence, thus, there would be no motivation to remove the nucleic acid of Database GenBank Accession Number AC022382 and insert this nucleic acid into a eucaryotic expression vector, transfect a eucaryotic host cell with said eucaryotic expression vector, and produce a polypeptide using said eucaryotic host cell. Thus, claims 24, 29, and 30 have not been rejected as being anticipated or rendered obvious by Database GenBank Accession Number AC022382.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

Art Unit: 1652

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

[11] Claims 4, 8, 9, 24-26, and 28-37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4, 5, and 8-11 of copending Application No. 10/300,828 (hereafter referred to as "Application '828"). An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by, or would have been obvious over, the reference claim(s). See *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); and *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). Although the conflicting claims are not identical, they are not patentably distinct from each other. Claims 4, 8, 9, 24-26, and 28-37 of the instant application and claims 4, 5, and 8-11 of Application '828 are both directed to an isolated nucleic acid encoding SEQ ID NO:2 and a complement thereof, a vector comprising said nucleic acid, a host cell containing said vector, and a method of making a polypeptide. The claims differ in that the nucleic acids of claims 4 and 5 of Application '828 encompass nucleic acids encoding variants and fragments of SEQ ID NO:2, claims 4(b), 25, 26, and 31(b) of the instant application are limited to SEQ ID NO:1, claim 31(a) of the instant application is limited to a transcript/cDNA encoding SEQ ID NO:2, and the process and vectors of claims 24, 28-30, and 32-37 of the instant application are further limited to embodiments not recited in claims 8, 10, and 11 of Application '828. It is noted that SEQ ID NO:1 of the instant application is a fragment of SEQ ID NO:1 of Application '828 that is 100% identical to nucleotides 135 to 1115 of SEQ ID NO:1 of Application '828. The specification of Application '828 discloses an embodiment within the scope of the genus of claims 4, 5, and 8-11 of Application '828 which supports said genus and that would anticipate claims 4, 8, and 9 herein, i.e., an isolated nucleic acid encoding SEQ ID NO:2 and a complement thereof (e.g., claims 4(a) and 4(e) and 5(a) and 5(e) of Application '828), a vector

Art Unit: 1652

comprising an isolated nucleic acid encoding SEQ ID NO:2 (e.g., claim 8 of Application '828), and a host cell containing said vector (e.g., claim 9 of Application '828). Claims 4, 8, and 9 cannot be considered to be patentably distinct over claims 4, 5, 8, and 9 of Application '828 when there is a specifically recited embodiment in Application '828 that would anticipate claims 4, 8, and 9 of the instant application.

Alternatively, claims 4, 8, 9, 24-26, and 28-37 cannot be considered patentably distinct over claims 4, 5, and 8-11 of Application '828 when there are specifically disclosed embodiments in Application '828 that support claims 4, 5, and 8-11 of Application '828 and fall within the scope of claims 4, 8, 9, 24-26, and 28-37 herein because the following specifically disclosed embodiments of Application '828 would have been obvious to one of ordinary skill in the art from the claimed genus of Application '828 based on the cited teachings of the specification of Application '828, which support the genus: the nucleic acid encoding SEQ ID NO:2 of claims 4 or 5 of Application '828 to be a nucleic acid comprising SEQ ID NO:1 or comprising or consisting of the full open reading frame (nucleotides 135 to 1115) of SEQ ID NO:1 (see Figure 1A, page 6, lines 24-29, and page 30, lines 10-15 of Application '828); the nucleic acid encoding SEQ ID NO:2 of claims 4 or 5 of Application '828 to be a transcript/cDNA sequence (see page 31, line 5 of Application '828); the vector and host cell of claims 8 and 9 of Application '828 to be a vector comprising a nucleic acid comprising or consisting of SEQ ID NO:1 or the open reading frame of SEQ ID NO:1 or a transcript/cDNA encoding SEQ ID NO:2 and a host cell containing said vector (see claims 8 and 9 of Application '828); to practice the methods of claims 10 and 11 of Application '828 using the host cell of claim 9 containing a vector comprising a nucleic acid or transcript/cDNA encoding SEQ ID NO:2, a vector comprising SEQ ID NO:1 or consisting of the open reading frame of SEQ ID NO:1 and recovering said polypeptide (see page 50, lines 9-11 of Application '828); the vector of claim 8 of Application '828 to be a plasmid, a virus, or a bacteriophage (see page 46, lines 4-9 of Application '828), to have the nucleic acid molecule inserted into the vector such that the polypeptide of SEQ ID NO:2 may be expressed (see page 45, lines 8-22 of Application '828), and optionally to have the nucleic acid molecule operatively linked to a promoter sequence (see page 45, lines 18-22 of Application '828). This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 1652

Conclusion

[12] Status of the claims:

- Claims 4, 8, 9, and 24-37 are pending.
- Claims 4, 8, 9, and 24-37 are rejected.
- No claim is in condition for allowance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Steadman, whose telephone number is (703) 308-3934. The Examiner can normally be reached Monday-Friday from 7:00 am to 5:00 pm. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Ponnathapura Achutamurthy, can be reached at (703) 308-3804. The FAX number for submission of official papers to Group 1600 is (703) 308-4242. Draft or informal FAX communications should be directed to (703) 746-5078. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Art Unit receptionist whose telephone number is (703) 308-0196.

David J. Steadman
Patent Examiner
Art Unit 1652

[Signature] 08/20/03

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: August 11, 2003, 14:34:44 ; Search time 2056 Seconds
(without alignments)
2.772 Million cell updates/sec

Title: us-10-090-002-3
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Scoring table: IDENTITY NUC
Gapop 10.0, Gapext 0.5

Searched: 1 segs, 185061 residues

Total number of hits satisfying chosen parameters: 2

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 1 summaries

Database : 12008691.seq:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	DB ID	Description
1	15389.5	99.9	185061	1	AC022382

ALIGNMENTS

RESULT 1
AC022382
LOCUS AC022382 Homo sapiens chromosome 3 clone RP11-266J6 map 3p, complete
DEFINITION AC022382 Homo sapiens chromosome 3 clone RP11-266J6 map 3p, complete
sequence.
AC022382
VERSION AC022382.3 GI:12007691
KEYWORDS HTG.
SOURCE Homo sapiens
ORGANISM Homo sapiens

REFERENCE
AUTHORS
Mammalia; Eutheria; Primates; Catarrhini; Homnidae; Homo.
1 (bases 1 to 185061)

Bao, W., Bao, J., Bao, Q., Bian, X., Cao, T., Chen, C., Chen, J., Ding, H.,
Dong, W., Fan, H., Feng, X., Gong, J., Guan, Q., Gu, X., Guo, D., He, L.,
Hu, S., Huang, F., Jin, Y., Kang, N., Li, C., Li, G., Li, J.,
Li, L., Li, S., Li, T., Liu, Y., Liu, N., Liu, B., Liu, Y., Li, W., Li, W.,
Li, Y., Luo, J., Niu, Y., Qi, Q., Qi, X., Song, L., Song, S., Sun, M.,
Sun, W., Sun, Y., Tan, X., Tao, R., Wang, H., Wang, J., Wang, L.,
Wang, L., Wang, R., Wang, X., Wang, Y., Wu, D., Wu, Q., Xie, F.,
Xuan, Z., Xue, Y., Yan, C., Yang, X., Yu, B., Zeng, Y., Zhang, G.,
Zhang, H., Zhang, L., Zhang, M., Zhang, X., Zhang, X.,
Zhang, Y., Zhang, Y., Zhang, Z., Zhu, B., Zhu, N., Yu, J. and Yang, H.

Chromosome 3p genomic sequence

Unpublished
2 (bases 1 to 185061)
AUTHORS Wu, D., Hu, S., Dong, W., Zhang, X., Wang, J., Zhang, Y., Zhang, H.,

Liu, B., Bao, W., Sun, Y., Wu, Q., Wang, H., Yang, X., Cheng, C., Wang, Y.,
Niu, Y., Qi, X., Li, T., Zhang, H., Liu, N., Wang, X., Yu, B., Fan, H.,
Liu, Y., Li, G., Li, C., Bao, Q., Bao, J., Wang, X., Song, L., Zhang, L.,
Guo, D., Huang, F., Zhang, G., Li, J., Bian, X., Zhang, M., Li, L.,
Feng, X., Yu, J. and Yang, H.

TITLE JOURNAL

Submitted (03-FEB-2000) Human Genomic Center, Institute of
Genetics, Chinese Academy of Sciences, Datun Road, Beijing, Beijing
100101, P.R.China

REFERENCE AUTHORS

3 (bases 1 to 185061)
Bao, W., Bao, J., Bao, Q., Bian, X., Cao, T., Chen, C., Chen, J., Ding, H.,
Dong, W., Fan, H., Feng, X., Gong, J., Guan, Q., Gu, X., Guo, D., He, L.,
Hu, S., Huang, F., Jin, Y., Kang, N., Li, C., Li, G., Li, J.,
Li, L., Li, S., Li, T., Liu, Y., Liu, N., Liu, B., Liu, Y., Li, W., Li, W.,
Li, Y., Luo, J., Niu, Y., Qi, Q., Qi, X., Song, L., Song, S., Sun, M.,
Sun, W., Sun, Y., Tan, X., Tao, R., Wang, H., Wang, J., Wang, L.,
Wang, L., Wang, R., Wang, X., Wang, Y., Wu, D., Wu, Q., Xie, F.,
Xuan, Z., Xue, Y., Yan, C., Yang, X., Yu, B., Zeng, Y., Zhang, G.,
Zhang, H., Zhang, L., Zhang, M., Zhang, X., Zhang, X.,
Zhang, Y., Zhang, Y., Zhang, Z., Zhu, B., Zhu, N., Yu, J. and Yang, H.

TITLE JOURNAL

Submitted (02-JAN-2001) Human Genomic Center, Institute of
Genetics, Chinese Academy of Sciences, Datun Road, Beijing, Beijing
100101, P.R.China

COMMENT

[WARNING] On Nov 13, 2002 this sequence was replaced by a newer
version gi:24942870.
On Jan 2, 2001 this sequence version replaced gi:8101170.

-----Genome Center

Center: Beijing Center

Center code: Beijing

Website: http://hgci.gtp.ac.cn

http://www.genomics.org.cn

Contact: hgci@gtp.ac.cn

----- Project Information

Center project name: 1% project

Center clone name: RP11-266J6

----- Summary Statistics

Sequencing vector: pUC18; 100% of reads

Chemistry: Dye-terminator; ET 55% of reads

Chemistry: Dye-terminator Big Dye; 45% of reads

Assembly program: Phrap; version 0.990329

Consensus quality: 86 bases at least Q40

Consensus quality: 264 bases at least Q30

Consensus quality: 378 bases at least Q20

Insert size: 812; sum-of-contigs

Quality coverage: 0.60x in Q20 bases; sum-of-contigs

FEATURES source

Location/Qualifiers

1..185061

/organism="Homo sapiens"

/mol_type="genomic DNA"

/db_xref="taxon:9606"

/chromosome="3"

/map="3p"

/clone="RP11-266J6"

BASE COUNT 47254 a 46299 c 45835 g 45673 t

Query Match 99.9%; Score 15389.5; DB 1; Length 185061;

Best Local Similarity 100.0%; Pred. No. 0;

Matches 15400; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Oy 1 AAACCGACCTTTGGCCCTTTTCCTTGCCTGCCCTCTAGTTGACGGCTCTCTCCCTAACTCGGA 60

|||||

Db 64776 AAACCGACCTTTGGCCCTTTTCCTTGCCTGCCCTCTAGTTGACGGCTCTCTCCCTAACTCGGA 64835

|||||

Oy 61 CCCAGGCATCAAACTCTGGAGCCCGCCAGTCAGTGACACCTCGGTCCTTTTGGCT 120

|||||

Db 64836 CCCAGGCATCAAACTCTGGAGCCCGCCAGTCAGTGACACCTCGGTCCTTTTGGCT 64895

|||||

Oy 121 GTTTCCTTCAGGATCCCGATTTACTTCTCTCCCAATTCCTCTGCGCCCAATACCT 180

|||||

Db 64896 GTTTCCTTCAGGATCCCGATTTACTTCTCTCCCAATTCCTCTGCGCCCAATACCT 64955

|||||

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11220	GTGAGCAGATCAAGAAGAACTTTGCCAAGAGCAAGTGGAGGTGAGTCCATATCCCTAGT	11279	Db	77076	GGATGTTGGGGGAAAGAGATGTCAAGGGCTGGCCCAAGACAGCTGTGGCTGGGAACAAGATGG	77135
75996	GTGAGCAGATCAAGAAGAACTTTGCCAAGAGCAAGTGGAGGTGAGTCCATATCCCTAGT	76055	Qy	12360	ATGCTGTGTGTACCATGACATGAGATGTTATACAGGGGACAGAAACATGTTTTCGGGGGA	12419
11280	TCCTGGTCCAGGCTCCAGGACTCCTCCCATCCCTACCAGGCTCAGCTTGACAGCA	11339	Db	77136	ATGCTGTGTGTACCATGACATGAGATGTTATACAGGGGACAGAAACATGTTTTCGGGGGA	77195
76056	TCCTGGTCCAGGCTCCAGGACTCCTCCCATCCCTACCAGGCTCAGCTTGACAGCA	76115	Qy	12420	TGGTTTTAGTTTTTACACATGGTGAATTTAGGGGTGTGTGGGACACCTAGTGGAGATAT	12479
11340	CCTGGCATCACACTGGGCACACAGTAACCTGCTTAGGATCCTTACTGAAGGACTTCATTC	11399	Db	77196	TGGTTTTAGTTTTTACACATGGTGAATTTAGGGGTGTGTGGGACACCTAGTGGAGATAT	77255
76116	CCTGGCATCACACTGGGCACACAGTAACCTGCTTAGGATCCTTACTGAAGGACTTCATTC	76175	Qy	12480	TGAATAGAGACACACCTGAGCAAGTTACTTCAGCTTTCTGCGCTCAGTTTCTCCTTTG	12539
11400	ATTCACCTCTTTCATTCACAAACACTCCCAACACCTCTCTATTCAGAGAGGGTCCCTC	11459	Db	77256	TGAATAGAGACACACCTGAGCAAGTTACTTCAGCTTTCTGCGCTCAGTTTCTCCTTTG	77315
76176	ATTCACCTCTTTCATTCACAAACACTCCCAACACCTCTCTATTCAGAGAGGGTCCCTC	76235	Qy	12540	AAAATGATAATAGTACCTACCTCAAAGACTTTTCATGAAGATTAAATGAATTAACGTAA	12599
11460	ACCTCCAAAGTCTAGAGGAAGTCTGTAAATTTCTCAGGAGGCATCTGATCCAGCCTATG	11519	Db	77316	AAAATGATAATAGTACCTACCTCAAAGACTTTTCATGAAGATTAAATGAATTAACGTAA	77375
76236	ACCTCCAAAGTCTAGAGGAAGTCTGTAAATTTCTCAGGAGGCATCTGATCCAGCCTATG	76295	Qy	12600	AGTCTTTAGAACAGTGCCTGACATACAGTGTATAGTGTGTTCATTAATTAATTAATATG	12659
11520	GGTCCGAGAAAGTCTAAAGTGGTGATGACCTGACAGAGCTGTCTAGTTAAGTAGGAA	11579	Db	77376	AGTCTTTAGAACAGTGCCTGACATACAGTGTATAGTGTGTTCATTAATTAATTAATATG	77435
76296	GGTCCGAGAAAGTCTAAAGTGGTGATGACCTGACAGAGCTGTCTAGTTAAGTAGGAA	76355	Qy	12660	AATTAATAGTTATGTTCTTATTTATATATATAGATACACATACATCTAACATATGCGTG	12719
11580	TTAGTAGGCATACCGGAATTAATGTCTATAGCCATTCCTGGGAAGTGCAGTGTAAAGCT	11639	Db	77436	AATTAATAGTTATGTTCTTATTTATATATATAGATACACATACATCTAACATATGCGTG	77495
76356	TTAGTAGGCATACCGGAATTAATGTCTATAGCCATTCCTGGGAAGTGCAGTGTAAAGCT	76415	Qy	12720	TGTGTGTAAATATATAATAAGCTTGTAGAGTGTTCCTGGGGCTTTAGGGGGAATTA	12779
11640	GGCCAGACTGAGGGGCTGAGGGGACTGAGAGGAGGAGGCCAATTTAGAGAAGCAGTA	11699	Db	77496	TGTGTGTAAATATATAATAAGCTTGTAGAGTGTTCCTGGGGCTTTAGGGGGAATTA	77555
76416	GGCCAGACTGAGGGGCTGAGGGGACTGAGAGGAGGAGGCCAATTTAGAGAAGCAGTA	76475	Qy	12780	ATAAATAACTCTCTGAATGAATAACAGAACTTTGCAAGAATCCCACTGCGCCCTGC	12839
11700	AGGGGCCAGGCTCTTAGGGCTCATATGCCACAGAGAGCACCACCTTGATCTGAGGG	11759	Db	77556	ATAAATAACTCTCTGAATGAATAACAGAACTTTGCAAGAATCCCACTGCGCCCTGC	77615
76476	AGGGGCCAGGCTCTTAGGGCTCATATGCCACAGAGAGCACCACCTTGATCTGAGGG	76535	Qy	12840	CCCATGACTTCACTCTCTCAAAAGTCTTTCTCCCTCTCCCTTCAATGCCTTCAATGCC	12899
11760	CACCTGAGGAGCCAGAGAACTTTAGGCAAGTATTTGCTGCATAGAAAGGCTCTCAGG	11819	Db	77616	CCCATGACTTCACTCTCTCAAAAGTCTTTCTCCCTCTCCCTTCAATGCCTTCAATGCC	77675
76536	CACCTGAGGAGCCAGAGAACTTTAGGCAAGTATTTGCTGCATAGAAAGGCTCTCAGG	76595	Qy	12900	AGCAAGCTTCAATGCCACGGCTGTGTGCGGCACATCAGGAAACTGCGAGTGGGCACCA	12959
11820	GCCAGGATGTGGCTCACGCTGTAAATCCAGCAGCTTTGGAGGCGCAGGTGGTTGGAT	11879	Db	77676	AGCAAGCTTCAATGCCACGGCTGTGTGCGGCACATCAGGAAACTGCGAGTGGGCACCA	77735
76596	GCCAGGATGTGGCTCACGCTGTAAATCCAGCAGCTTTGGAGGCGCAGGTGGTTGGAT	76655	Qy	12960	GCCAGGAGGCGCAGGGCAGACGGCGAGCCATGGGGAGCTGCTGACACCTGCGCTGGGG	13019
11880	CACCTGAGGTCAGGATTCAGACCATCCTGGCCAAACATGCAAAACCTCTCTCTACTA	11939	Db	77736	GCCAGGAGGCGCAGGGCAGACGGCGAGCCATGGGGAGCTGCTGACACCTGCGCTGGG	77795
76656	CACCTGAGGTCAGGATTCAGACCATCCTGGCCAAACATGCAAAACCTCTCTCTACTA	76715	Qy	13020	GTGAGGAGGCGGCTCTCGAAGAGGCGATGGGTGTCTCCAAAGGTGACCCGGGCTGGAG	13079
11940	AAAATAAAGAAATTAGCCACACATGGTGGTGGCTGTATCCACGCTACTTGGGAAG	11999	Db	77796	GTGAGGAGGCGGCTCTCGAAGAGGCGATGGGTGTCTCCAAAGGTGACCCGGGCTGGAG	77855
76716	AAAATAAAGAAATTAGCCACACATGGTGGTGGCTGTATCCACGCTACTTGGGAAG	76775	Qy	13080	TGGAGGCGCTCCCTCGGGCCACCTCTGTCTCTCTCCCATGACAGGCGCGGAGCTGGG	13139
12000	CTGAGGAGGAGAAATTAATCTGAACTCGAGATGGGGTTCGAGTGAGCTGAGATCGGCG	12059	Db	77856	TGGAGGCGCTCCCTCGGGCCACCTCTGTCTCTCTCTCCCATGACAGGCGCGGAGCTGG	77915
76776	CTGAGGAGGAGAAATTAATCTGAACTCGAGATGGGGTTCGAGTGAGCTGAGATCGGCG	76835	Qy	13140	CTGTTGCTGTGTCAGACTGCTGCTGGAGCCGCGGACAGAACTGTCCCCACACTGCCCA	13199
12060	CACCTGCATCCAGCTGGGCAACAAAGTGAGACTCCACCTCAAAAAAAGAAAGAGCT	12119	Db	77916	CTGTTGCTGTGTCAGACTGCTGCTGGAGCCGCGGACAGAACTGTCCCCACACTGCCCA	77975
76836	CACCTGCATCCAGCTGGGCAACAAAGTGAGACTCCACCTCAAAAAAAGAAAGAGCT	76895	Qy	13200	CCAGCTCTAGGGCCCTGAGACTCGGGTTCATGATCTCTGCGTGGAGGGCTTTGGGGGAG	13259
12120	CTCAGGATGCAGAAATGGCATAGAGTAAAGACTGGGTGACGCAATTAGGAGGCTGTGGCA	12179	Db	77976	CCAGCTCTAGGGCCCTGAGACTCGGGTTCATGATCTCTGCGTGGAGGGCTTTGGGGGAG	78035
76896	CTCAGGATGCAGAAATGGCATAGAGTAAAGACTGGGTGACGCAATTAGGAGGCTGTGGCA	76955	Qy	13260	CCTGCTCCCTTCCCTCCCTGAAACGGGGAGTTTCTCTGCCCTGTCCCTCTCCTCAGCTGCT	13319
12180	GAGATACAGGAGGATGGTAAAGGTTTGGAAACACAGTAGCAGCAACAGGGGCGAG	12239	Db	78036	CCTGCTCCCTTCCCTCCCTGAAACGGGGAGTTTCTCTGCCCTGTCCCTCTCCTCAGCTGCT	78095
76956	GAGATACAGGAGGATGGTAAAGGTTTGGAAACACAGTAGCAGCAACAGGGGCGAG	77015				